



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,535	12/04/2000	Kiyomi Nakamura	503.39364X00	4344

20457 7590 10/01/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

IP, SIKYIN

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 10/01/2003

24

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/727,535

Applicant(s)

NAKAMURA ET AL.

Examiner

Sikyir Ip

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/09/03;08/08/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 26-41 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-30 and 34-39 is/are allowed.
- 6) ☒ Claim(s) 1-11,22-23,26-27,31-33, 40-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, 4-11, 22-23, 26-27, 31, 33, and 40-41 are rejected under 35 U.S.C. § 103 as being unpatentable over DE 1259578 (abstract) in view of acknowledged prior art admission from page 1, line 11 to page 3, line 15 of the instant specification.

4. Claims 1, 3-11, 22-23, 26-27, 31-33, and 40-41 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 5964965 to Schulz et al (abstract) in view of acknowledged prior art admission from page 1, line 11 to page 3, line 15 of the instant specification.

5. The cited reference(s) disclose(s) the features including the claimed Mg based

alloy compositions. The features relied upon described above can be found in the reference(s) at: their abstracts. The difference between the reference(s) and the claims are as follows: Cited references do not disclose the claimed grain size, and/or do not disclose the claimed properties. However, it is well settled that a prima facie case of obviousness would exist where the claimed ranges and prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, *In re Titanium Metals Corporation of America v. Banner*, 227 USPQ 773 (Fed. Cir. 1985), *In re Woodruff*, 16 USPQ 2d 1934, and *In re Aller*, 105 USPQ 233.

6. The Mg based alloys of cited references may cast by different methods. But, acknowledged prior art admission in page 1, line 11 to page 3, line 15 discloses cast Mg based alloy by die casting or injection molding are conventionally done in the art of cited references. It has been held a use of new material (here conventional Mg based alloy) in old process is not invention since process is merely being used with analogous material in same art for which process was developed, *In re LaVerne, et al.*, 108 USPQ 335.

7. Furthermore, the invention defined in a product-by-process claim is a product, not a process. *In re Bridgeford*, 357 F. 2d 679, 149 USPQ 55 (CCPA 1966). It is the patentability of the product claimed and not of the recited process steps which

must be established. See *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972) and *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). The guidance that has been provided by court on this matter is

[i]f the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

In re Thorpe, 777 F.2d 695, 227 USPQ 964, 966 (Fed. Cir. 1985).

8. The limitation as set forth in claim 27 reads on solidification of the Mg alloy during casting which contains mixture of solid and liquid phases.

9. Moreover, the instant Mg based alloy compositions are overlapped by the cited references; consequently, the properties as recited in the instant claims would have inherently possessed by the teachings of the cited references. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possess characteristics attributed to the claimed product. *In re Spade*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

In re Best, 195 USPQ, 430 and MPEP §2112.01.

“Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). ‘When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are

not.'

In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP §2112.01

Allowable Subject Matter

10. Claims 28-30 and 34-39 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: The claimed oxide film is not disclosed, taught, or suggested by references of record.

Response to Arguments

12. Applicant's arguments filed July 9, 2003 have been fully considered but they are not persuasive.

13. Applicants argue that the instant Figures 3-8 have shown the claimed Sn and Al contents are critical. But, the properties in said Figures are not unexpected. Furthermore, said Figures compare the claimed alloy to alloy that does not contain Sn. The alloys of cited references contain Sn which has content overlapped over 50% of the claimed range. Comparison must be done under identical condition except for the novel features of the invention. In re Brown, 173 USPQ 685 and In re Chapman, 148 USPQ 711. The showing of unexpected results must be occurred over the entire claimed range. In re Clemens, 622 F.2d 1029, 206 USPQ 289, 296 (CCPA 1980).

The scope of the showing must be commensurate with the scope of the claims. In re Tiffin, 448 F.2d 791, 792 (Fed. Cir. 1971), In re Coleman, 205 USPQ 1172, In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983), and In re Greenfield, 197 USPQ 227.

14. Applicants argue that DE 1259578 fail to disclose Al should be at least 12 wt.% in combination with Sn content being 0.5 to 10 wt.%. But, the claimed alloy composition is overlapped by cited references. Furthermore, there is no factual evidence showing the claimed combination of Al and Si contents are critical.

15. Applicants argue that DE 1259578 is directed to powder metallurgy. But, the said reference discloses forming the powder from molten Mg alloy which has composition overlapped the claimed Mg alloy composition.

16. Applicants argue that Mg based alloys of Schulz is not and would not be die cast or injection molded. But, the acknowledged prior art admission in page 1, line 11 to page 3, line 15 of the instant specification discloses that the claimed cast methods are conventionally used for Mg based alloys. Accordingly, it would have been prima facie obvious for an ordinary skill artisan motivated by a reasonable expectation of success to use the for in order to obtain all of the known benefits. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233. It has been held a use of new (here old) material

in old patented process is not invention since process is merely being used with analogous material in same art for which process was developed, In re LaVerne, et al., 108 USPQ 335, and it has been held that discovery of an optimum value for a known process is an obvious engineering. In re Aller, 105 USPQ 233 (CCPA 1955). Furthermore, applicants have not shown the properties difference because of the casting methods.

Conclusion

17. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s)

have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combination of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been met by the rejections as set forth above.


Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (703) 308-2542. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (703)-308-1146.

The facsimile phone number for this Art Unit 1742 are (703) 305-3601 (Official Paper only) and (703) 305-7719 (Unofficial Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.



SIKYIN IP
PRIMARY EXAMINER
ART UNIT 1742

S. Ip
September 20, 2003